UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,959	08/10/2006	Satoshi Eguchi	1374.46346X00	4026

20457 7590 05/28/2008

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-3873

EXAMINER	
SLUTSKER, JULIA	

ART UNIT	PAPER NUMBER
2891	

MAIL DATE	DELIVERY MODE
05/28/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/588,959	EGUCHI ET AL.	
	Examiner	Art Unit	
	JULIA SLUTSKER	2891	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-20* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. **Applicant should notice that this Office Action includes a Restriction Requirement and an Election Requirement. Note the Summary of the Requirements below.**

Restriction Requirements

2. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims will be restricted.

Group I, claims 9-12, drawn to a method of manufacturing of a semiconductor device with specific degree of dilution of the diluted material, classified in class 438, subclass 493.

Group II, claims 13-16, drawn to a method of manufacturing of a semiconductor device with specific degree of introduction of the diluted material 117 subclass 30.

Claims 1, 3-8, and 17-20 are linking claims and will be examined with elected invention.

These inventions are related as subcombinations as usable together. See, for example, M.P.E.P. § 806.05(d).

A complete reply to this requirement must:

1. **elect an invention to be examined even though the requirement may be traversed (37 CFR § 1.143); and**
2. **list all claims reading on the elected invention, including any claims subsequently added.**

An argument that all claims are allowable, or that the requirement is in error, is nonresponsive unless accompanied by an election. See, for example, M.P.E.P § 818.03(b).

To preserve a right to petition under 37 CFR § 1.144, Applicant must elect with traverse. See, for example, M.P.E.P. § 818.03(c). An untimely traversal loses the right to petition under 37 CFR § 1.144. A traversal must be presented at the time of election to be considered timely.

If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. See, for example, M.P.E.P § 818.03(a).

Should Applicant traverse on the ground that the inventions are not patentably distinct, Applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if Examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. § 103(a) of the other invention.

If claims are added after the election, Applicant must indicate which of these claims are readable on the elected invention. See M.P.E.P. § 809.02(a).

Upon the cancellation of claims to a non-elected invention, Applicant must amend the inventorship complying with 37 CFR § 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Amending inventorship must be accompanied by a request under 37 CFR § 1.48(b) and include the fee required under 37 CFR § 1.17(i).

Restriction for examination purposes is proper because the above-identified inventions are independent or distinct for the reasons given below, and there would be a serious search and examination burden if restriction were not required since at least one of the following applies:

a) the inventions have acquired a separate status in the art in view of their different classification;

b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;

c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);

d) the prior art applicable to one invention would not likely be applicable to another invention; and

e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. § 101 and/or 35 U.S.C. § 112, first paragraph.

3. A Restriction Requirement is proper if: (1) the inventions are "distinct," and (2) examining the inventions together would be a "serious burden." See, M.P.E.P. § 803I. See also M.P.E.P. § 808, stating that a proper restriction requirement must satisfy both prongs.

In the case of subcombinations usable together, the inventions are distinct if they are not obvious variants, and if it is shown that at least one subcombination is separately usable. See, for example, M.P.E.P. § 806.05(d).

The above-identified inventions are distinct from each other because of the following reasons:

In the instant case, the subcombinations of inventions I and II do not overlap and are non-obvious over each other because they are directed to features classified in different subclasses. They also are separately implemented. For example, invention I can be implemented separately than Invention II, and is directed to the method of manufacturing of a semiconductor device with specific degree of dilution of the diluted material (implementing of this method step does not require any step of Invention II); Invention II can be implemented separately than Invention I, and is directed to a method of manufacturing of a semiconductor device with specific degree of introduction of the diluted material, for example (this implementation does not require any of step of Invention I).

The first prong of the test therefore is satisfied.

In the instant case, moreover, examining the inventions together is a serious burden on Examiner because, as shown by their different classifications, the inventions have acquired a separate status in the art. Additionally, since the inventions are differently classified, examining the inventions is a serious burden because examining them requires searching different fields. See, for example, M.P.E.P. § 808.02, describing how "serious burden" on Examiner is established.

The second prong of the test therefore is also satisfied.

Accordingly, restricting the claims directed to inventions I-II is proper.

Election Requirements

4. Restriction to one of the following patentably distinct Species is required under 35 U.S.C. § 121:

1: reaction chamber of a single wafer epitaxial device (Fig.9, [0183], lines 1-3)

2: reaction chamber of a batch-type epitaxial device ([0183], lines 5-7)

The species are independent or distinct because they have mutually exclusive characteristics. In addition, these species are not obvious variants of each other based on the current record.

If applicant elects either invention I or II, Applicant is further required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Examining these patentably distinct species together is serious burden due to their mutually exclusive characteristics. The different species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and/or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species to be examined even though the requirement may be traversed (37 CFR 1.143) **and (ii) identification of the claims encompassing the elected species**, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

The election of the species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the election of species requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be

considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected species.

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the species unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other species.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141.

Summary of Requirements

5. **Accordingly, in reply to this Office Action, Applicant must elect one, and only one, of I1, I2, II1, and II2.**

CONCLUSION

6. A shortened statutory period for reply to this Office Action is set to expire **ONE MONTH** from the mailing date of this Office Action. Applicant is reminded of the extension of time policy as set forth in 37 CFR § 1.136(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JULIA SLUTSKER whose telephone number is (571)270-3849. The examiner can normally be reached on Monday-Friday, 8 a.m.-5 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Baumeister can be reached on (571)-272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JS

/HRAYR A. SAYADIAN/
Primary Examiner, Art Unit 2815